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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------------------------------------------------------------------------------------------------------|-------------|----------------------|---------------------------------|-----------------------------|
| 10/667,861 | 09/23/2003 | Shunichi Numazaki | 242763US-4499-392TTCRDDIV | 1389 |
| 22850 7590 05/18/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | | |
| | | | EXAMINER EGAN, SCOTT T | |
| | | | ART UNIT 2622 | PAPER NUMBER |
| | | | NOTIFICATION DATE 05/18/2007 | DELIVERY MODE ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | | | |
|------------------------------|-------------------------------|---------------------------------|--|
| Office Action Summary | Application No. 10/667,861 | Applicant(s) NUMAZAKI ET AL. | |
| | Examiner Scott Egan | Art Unit 2622 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This case is being treated like a continuation due to the fact that there was no restriction filed.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 22-41 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 6,661,453. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Claims 22 and 32 of the present application is broader and fully encompassed by **claim 3** of the reference patent. In view of the broadly recited "image sensor" of claim 22 and claim 32, claim 3 of the referenced patent specifically requires "camera

means” – the remaining limitations are the same. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the narrower “camera means”.

Claims 23 and 33 of the present application is broader and fully encompassed by **claim 6** of the reference patent. In view of the broadly recited “image sensor” of claim 23 and claim 33, claim 6 of the referenced patent specifically requires “camera means” – the remaining limitations are the same. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the narrower “camera means”.

Claims 24 and 34 of the present application is broader and fully encompassed by **claim 9** of the reference patent. In view of the broadly recited “image sensor” of claim 24 and claim 34, claim 9 of the referenced patent specifically requires “camera means” – the remaining limitations are the same. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the narrower “camera means”.

Claims 25 and 35 of the present application is broader and fully encompassed by **claim 8** of the reference patent. In view of the broadly recited “image sensor” of claim 25 and claim 35, claim 8 of the referenced patent specifically requires “camera means” – the remaining limitations are the same. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the narrower “camera means”.

Claims 26-31 and 36-40 of the present application is broader and fully encompassed by **claim 10** of the reference patent. In view of the broadly recited "image sensor" of claim 26-31 and 36-40, claim 10 of the referenced patent specifically requires "camera means" – the remaining limitations are the same. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the narrower "camera means".

Claim 41 of the present application is broader and fully encompassed by **claim 19** of the reference patent. In view of the broadly recited "image sensor" of claim 41, claim 19 of the referenced patent specifically requires "camera means" – the remaining limitations are the same. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the narrower "camera means".

Specification

2. The disclosure is objected to because of the following informalities:
 - a. The amendment added to the page 1 of the specification should include the patent number 6,661,453 that it is a divisional of instead of the application number 09/265,598).
 - b. On page 8, line 11 "most of light wave length" should be changed to -most light wave lengths-.
- Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 22, 32, and 41 are rejected under 35 U.S.C. 102(e) as being anticipated by Numazaki et al. (US 6,144,366).

Consider **claim 22**, Numazaki et al. explicitly teach:

An image receiving device comprising:

an image sensor configured to repeatedly receive a light from an object and to generate images of the object (reflected light image acquisition unit 1102);

a differential image generating unit configured to generate a differential image from at least two images (column 55, lines 7-13);

a detector configured to detect a change cycle or an intensity of an external light (external light detection unit 1203);

an evaluation unit configured to evaluate an influence of the external light and to derive an optimal timing in which a minimum influence of the external light is attained (external light state judgement unit 1204, column 55, lines 39-46); and

a controller configured to control a timing of receiving the light of the image sensor depending upon the optimal timing derived by said evaluation unit (control unit 1205, column 55, lines 47-61).

Consider **claim 32**, Numazaki et al. explicitly teach:

An image receiving device comprising:

a light source configured to emit a light to an object (lighting unit 1101);

an image sensor configured to repeatedly receive the light reflected from the object and to generate images of the object (reflected light image acquisition unit 1102);

a differential image generating unit configured to generate a differential image from at least two images (column 55, lines 7-13);

a detector configured to detect a change cycle or an intensity of an external light superposed on the light from the light source (external light detection unit 1203);

an evaluation unit configured to evaluate an influence of the external light and to derive an optimal timing in which a minimum influence of the external light is attained (external light state judgement unit 1204, column 55, lines 39-46); and

a controller configured to control a timing of receiving the light of the image sensor and a timing of emitting a light of the light source, both depending upon the optimal timing derived by said evaluation unit (control unit 1205, column 55, lines 47-61).

Consider **claim 41**, Numazaki et al. explicitly teach:

An image receiving method having a measuring mode to detect an influence of an external light and a normal mode to receive images (column 54-55, lines 57-67 and

1-6 respectively), with an image sensor repeatedly receiving a light from an object and generating images of the object (reflected light image acquisition unit 1102), and a differential image generating unit configured to generate a differential image from at least two images (column 55, lines 7-13), the method comprising:

detecting a change cycle or an intensity of an external light in the measuring mode (external light detection unit 1203);

deriving an optimal timing in which a minimum influence of the external light is attained in the measuring mode (external light state judgement unit 1204, column 55, lines 39-46); and

controlling a timing of receiving the light of the image sensor depending upon the optimal timing in the normal mode (control unit 1205, column 55, lines 47-61).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

4. **Claims 23-31 and 33-40** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Takei (US 4,992,855) teaches an image pickup apparatus that determines the phase of the flicker of a light source and uses that information to determine the timing of the image pickup.
- b. Munson et al. (US 6,295,085) teaches a method of eliminating flicker effects including a unit that determines the flicker frequency using a light detector and a compare voltage.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Egan whose telephone number is (571) 270-1452. The examiner can normally be reached on Monday-Friday 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc-Yen Vu can be reached on (571) 272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2622

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SE


NGOC-YEN VU
SUPERVISORY PATENT EXAMINER